MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022/2023 (TERM ID 2210 & TERM ID 2215)

BBF2134 – FINANCIAL MARKETS AND INSTITUTIONS

(All Sections/Groups)

18 FEBRUARY 2023
09.00a.m–11.00a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 3 pages with 4 questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

QUESTION 1

A. Sharon owns a RM1,000-par, zero coupon bond that has five years of remaining maturity. She plans on selling the bond in one year and believes that the required yield next year will have the following probability distribution. As a broker, you are required to:
Show all your working steps.

Probability	Required Yield (%)
0.1	6.60
0.2	6.75
0.4	7.00
0.2	7.20
0.1	7.45

i. Calculate the expected price when she sells the bond.

(13 marks)

ii. Calculate the standard deviation of the bond price.

(8 marks)

B. Suppose that many large corporations decide not issue bonds due to the cost of complying with new financial market regulations. Describe the expected effect on interest rates.

(4 marks)

(Total: 25 marks)

QUESTION 2

A. One of the most frustrating problems in modern finance is the issue known as the "principal-agent problem."
Discuss **FOUR (4)** approaches to alleviate the principal-agent problem in debt and equity contracts.

(20 marks)

B. The price of RM8,000 face value commercial paper is RM7,930. If the annualised discount rate is 4 percent, when will the paper mature?
Show all your working steps.

(5 marks)

(Total: 25 marks)

Continued ...

QUESTION 3

A. James is considering buying a bond that matures in 5 years from today. The par value of the bond is RM2,000 and the coupon rate is 5 percent. If the current market interest rates are 6 percent, what is the bond price today if the coupon is paid annually?
Show all your working steps.

(5 marks)

B. Maxis Berhad is selling at RM22.00 per share. The most recent annual dividend paid was RM0.80. If the market requires a return of 11 percent, compute the expected dividend growth rate for Maxis Berhad.
Show all your working steps.

(5 marks)

C. Return on Assets (ROA) and Return on Equity (ROE) are considered as the performance evaluation tools for banks. Do they always move in the same direction? How does an increase in capital affect them? Justify your answer.

(6 marks)

D. A bond pays RM80 per year in interest with a coupon rate 8 percent. The bond has 5 years before it matures and pays RM1,000 at maturity. Assuming a discount rate of 10 percent. Calculate the price of the bond.
Show all your working steps.

(5 marks)

E. Hap Seng Consolidated Berhad's stock has a price earnings ratio equal to 22, whereas Axiata Group Berhad has a price earnings ratio equal to 20. Both firms' earnings per shares are RM1.12. Compute both firms' stock prices.
Show all your working steps.

(4 marks)

(Total: 25 marks)

QUESTION 4

A. CIMB Group Holdings Berhad has prepared the financial statement for the year of 2021. After Robert reviews the past data, he notices that 10% of fixed-rate mortgages prepay each year. He also estimates that 10% of checkable deposits and 20% of savings accounts are rate sensitive.

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CIMB Group Holdings Berhad 2021

Assets	RM	Liabilities	RM
Reserves	5,000,000	Checkable Deposits	15,000,000
Securities		Money Market Deposits	5,000,000
< 1 Year	5,000,000	Savings Accounts	15,000,000
1 to 2 Years	5,000,000	CDs	
> 2 years	10,000,000	Variables-rate	10,000,000
Residential Mortgages		< 1 Year	15,000,000
Variables-rate	10,000,000	1 to 2 Years	5,000,000
Fixed-rate	10,000,000	> 2 years	5,000,000
Commercial Loans		Federal Funds	5,000,000
< 1 Year	15,000,000	Borrowings	
1 to 2 Years	10,000,000	< 1 Year	10,000,000
> 2 years	25,000,000	1 to 2 Years	5,000,000
Buildings, etc.	5,000,000	> 2 years	5,000,000
		Bank Capital	5,000,000
Total	100,000,000	**Total**	100,000,000

Based on the financial statement above, Robert is required to complete the following: Show all your working steps.

i. Calculate the current income GAP for CIMB Group Holdings Berhad.

(13 marks)

ii. Compute the bank's current net interest income if rates fall by 0.70%.

(3 marks)

B. The most important financial derivatives that managers of financial institutions use to reduce risk are forward contracts, financial futures, options, and swaps.
Briefly explain interest-rate swaps. Discuss **TWO (2)** advantages and **TWO (2)** disadvantages of interest-rate swaps.

(5 marks)

C. Joanne has to hedge the interest rate risk of her holdings of RM6,480,000 in Treasury bonds by buying or selling futures contracts. Determine the type of transaction and the price of each contract if she buys or sells 48 contracts.

(4 marks)

(Total: 25 marks)

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